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## Book Review

*The Application of Computing Techniques to Automatic Control Systems in Metallurgical Plant*, by A. B. CHELYUSTKIN, 1964; 225 pages. (Oxford: Pergamon Press Ltd., 70s.)

Mathematicians and engineers who have been following the magnificent advances in control theory from the Russian school of Pontryagin will be sadly disappointed if they expect to find any applications of this theory. The equipment and techniques described in this book remind one of the first stumbling efforts that have already been made in this country, and one is left with the impression that the full potentiality of computers in industrial control is as far from realization in the Soviet Union as it is here.

The book is divided into two parts. The first and shorter part skims over the subject matter of analogue computers, transducers, digital computers, binary arithmetic, storage

devices, and analogue-to-digital conversion equipment, in 56 pages. The remaining 150-odd pages consider some individual applications to a sintering plant, a blast furnace, the combustion of open-hearth furnaces, powering electric arc furnaces, the screwdown and speed in a reversing mill, gauge and tension control in tandem mills. All of these applications seem to be very straightforward and offer no new startling ideas. It is very difficult to judge whether these are merely proposals or descriptions of actual installations. The last few pages make a cursory survey of the possibility of on-line control of a total works by digital computer.

It must, in fairness, be added that the book was originally written in 1960, and it is to be hoped that in the intervening four years a great deal of progress has been made.

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